Continuing Education for Environmental Sustainability in the 21st Century Nigeria: Issues and Perspectives

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Abstract: Development in the 21st century portends grave implications for the environment, natural resources and ecosystem. This study therefore put in perspective the challenge of this trend for education. This study highlighted the different international organization position on sustainability and strategies for achieving it. The study traced the history and development of environmental education were appraised and framework for the development of environmental education in Nigeria, suggested, based on the features of environmental protection principles, the international commission on education for the 21 century report and the international conference of adult education recommendations for sustainable development through life-long learning. This study appraised environmental education in Nigeria and recommended features it must posses in order to achieve sustainability in the 21st century.

Key words: Continuing education, environmental sustainability, issues and perspectives, Nigeria

INTRODUCTION

As humanity is ushered in into the 21st century, profound changes are taking places both globally and locally. Development is being greatly determined by science, technology and economy with their concomitant effects on a number of social, political, economic, cultural and ecological variable affecting human quality of life and environmental equilibrium in different manners (Hall, 2003). This is also manifest in changing pattern of work and employment, ecological crisis and tension between social groups based on culture, ethnicity, gender roles, religion and income. In confronting the many challenges that the future holds in store and the problems facing the millennium, humankind sees in education and indispensable asset in its attempt to face this urgent and pressing challenges with knowledge, courage and creativity.

ENVIRONMENT IN THE DEVELOPMENT

The issue of natural or man-made environment is among the most significant and controversial development issues that portend cautious consideration given the complex nature of developmental needs of the millennium. This is the evidence in contrasting relationship between the concepts of "progress" and "environmental degradation" in view of the foregoing it becomes imperative that a clear understanding of the link between development, poverty and environment must be ensured in order to live up to the challenge of sustainable development. The realization that a growth based development model, by itself would no be sufficient to ensure long-term sustainability and an equitable sharing economic progress led to the 1987 report of the World Commission on Environment and Development, titled Our Common Future. The report came up with the notion of sustainable development, which suggested the sound development required concerted efforts to protect the environment. According to the commission, sustainable development: is development that meet the needs of the present generation without compromising the ability of future generations to meet their own needs (WCED, 1987). This implies that sustainability requires integrating economic activity with environmental integrity, social concerns and effective governance system. The goal of that integration can be seen as sustainable development (International Institute for Environment and Development and World Business for Sustainable Development, 2002). The key goals of sustainability are to live within our environmental limits, to achieve social justice and to foster economic and social progress (Tilbury *et al.*, 2005). This is hinged on the realization of the fact that producing resources for survival under ecological destructive condition, has a disastrous economic implication as pointed out by United Nation Conference on Environment and Development (UNCED) held in Rio in 1992:

> Sustainability therefore requires a dynamic balance between a variety of factor including social, cultural and economic demands of population and the need to safeguard the natural environment of which humanity is a critical part. In other words, that human and environment security are the ultimate goals (Hall, 2003).

THE EDUCATION AND ENVIRONMENTAL SUSTAINABILITY

An attempt to determine the contribution of education to sustainable development demands that were traces the 35 years history of environmental education. Education for sustainable development (1972-2007) and the transformation it had undergone during its different stages of development.

The initial boost of environmental education was provided by the United Nations Conference on the human environment held in Stockholm in 1972. It stressed environmental concerns and recommended that environmental education should be recognized and promoted in all countries.

In 1875, UNESCO in Belgrade formulated the concepts and visions, the intergovernmental governmental conference on environmental education in 1977 adopted this in Tbilisi and recommended that special attention should be paid to understanding the complex relations between socio-economic development and the improvement of the environment (UNESCO, 1980).

As a result of limited achievement in environmental protection. The notion of sustainable development came up in the Moscow congress of environmental education and training in 1987. Agenda 21, an intergovernmental agreement signed at the United Nation Conference on environmental and development held in Rio in 1992 accords significant role to education as the most effective means that the society possesses for confronting the challenges of the future.

The document provides an agenda for sustainability, focusing on the formulation and development of a framework for the reorientation of education towards the challenges and demand of sustainable development. Chapter 36 of Agenda 21 states that:

> Education include formal education, public awareness and training should be recognized as a process in which human beings and societies can reach their fullest potential. Education is critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making both formal and non-formal education are indispensable to changing people's attitudes so that they have capacity to assess and address their sustainable development concerns.

As a follow up, the international conference on "Environment and society: education and public awareness for sustainability" was held in Thessalonikki in 1997. The conference set the foundation for the context of Education For Environment and Sustainability (EFES). It sees education as a bridge between economic and human development, establishing new links between educational and developmental policies, with a view to strengthening the bases of knowledge and skills, such as encouragement of teamwork, synergies with local resources etc. EFES portrays development not as an economic puzzle or environmental danger but as a set of national and moral choices guided by vision of a sustainable future (Scoullos and Malotidi, 2004).

The main issue in the conference on environmental education/education for sustainable development is the quest of strengthening the people capacity to address environment and development issues, such as food security, poverty, sustainable consumption, sustainable tourism, urban quality, women trade, ecological public health and waste management, climate change, deforestation, land degradation, desertification, depletion of natural resources and loss of biodiversity. To be more aware and better understand such complexity; to develop knowledge, values and attitudes, life skills and ethical behaviours consistent with sustainable development and for effective participation in decision making (Hall, 2003).

The international commission on education for 21st century, known as Delor's Report (1972) envisioned learning throughout life as one of the keys to the 21st century. It therefore proposed 4 pillars as the foundation of education; learning to live together, learning to be, learning to do and learning to know. These pillars have dire implication for environmental education. This 2007 theme "Learning in a changing world" caption the intention of Delors' report and effect towards realizing its goals.

Scoullos and Malotidi (2004) juxtaposed all the international commission reports as they effect environmental education and came up with the following content and characteristics of the domain of the objectives for reoriented environmental education:

Awareness: To help social groups and individuals acquire awareness of the entirety of environmental and allied socio-economic issues, understanding the complexity and interconnectedness of problems such as environmental degradation, wasteful consumption, poverty, gender inequality, violation of human rights etc.

Environmental education: Should develop in long term, learner's cognitive skills of learning to know so as to be able to grapple with the modern world environment, social and economic challenges, through life long learning and adoption to new knowledge related to the result of science and application of technology.

Behaviour, attitudes and values: To help social groups and individuals gain a variety of experiences, acquired and strengthen values and feelings of concern for the environment, society and interdependence relationship between them and achieve the necessary motivation to be actively involved in the protection and improvement of the quality of the environment and of the life of unprivileged people such as the poor, women, victims of racism, culture and ethnic minorities etc. "learning to live together" that is understanding of other people and appreciation of interdependence education for sustainable development requires approaches that promote and understating and appreciate culture and cultural diversity and that strengthen moral values and sensitivities that developing the corresponding attitudes and behaviours.

Skills: To help social group and individuals acquire skills for identifying and addressing environmental and socio-economic problems through appropriate decision-making and action. It involves learning how to take decision and acting upon them, considering the long-term future of environment and society. Skills like, critical thinking, reflection, communication skills, conflict management etc.

Participation: To provide individual and social group with the opportunity to be actively involved at all levels and encourage them in working collectively and efficiently towards addressing problems and issues of their community "Learning to do" by developing the competence that enable people to deal with a variety of issues affecting their lives, working at personal and group levels, as well as acting locally while thinking globally.

PRINCIPLES OF ENVIRONMENTAL EDUCATION

Analysts have suggested that individuals and organizations evaluating existing or proposed environmental policy should be guided by the same laid down principles. These principles have far reaching implications for environmental education and environmental sustainability to the new millennium. The following environmental principles are imperative in designing the model for education for sustainability in Nigeria. These are the humility principle, the reversibility principle, the precautionary principle, the integrative principle and the environmental justice principle (Miller, 2004).

A system of education that will respond to environmental sustainability in the new millennium requires a holistic model that promotes the understanding of how human decisions and actions affect environmental quality as well as using the understanding as the basis for responsible and effective citizenship (Carter, 2003). This arrangement must provide the knowledge and skills to adopt environmental protection principle.

The humility principle: Human understanding of the nature and of the nature of the consequence of his activities on the natural environmental is limited, hence environmental education must take cognizance of this and educational programmes need to be packaged in such a way that it will strengthen people's capacity to address environmental and development issues. This hinged on the fact that understanding of environmental issues is more limited than their factual knowledge, environmental knowledge is science based and understanding of the complexity of environmental issues is more limited than factual knowledge about environment (Tilbury *et al.*, 2005).

The reversibility principle: Environmental education in this present globalize world must imbue beings with the attitude and knowledge of refraining from actions and activities whose inimical effect on the ecosystem are irreversible. A significant number of environmental outcomes are fundamentally irreversible and the implication of such change are hard to predict (World Bank, 1992) issues like climate change, ozone depletion, nonrenewable natural resources and exhaustion cannot be reversed if they are not handled in sustainable manner.

The precautionary principle: Environmental education must provide receivers with the knowledge and skills that will engender precautionary attitude when much evidence indicates that an activities raises threat of harm to human health or the environment. Individual actions often have little effect on the environment but the cumulative effect of many such action can be substantial, moreover many potential environmental changes have significantly delayed impact, hence the need to emphasis appropriate prevention or mitigation actions. People should take precautionary measures to prevent or reduce activities harmful to the environment, even if some of the causer-and-effect relationships are not fully establish scientifically (Miller, 2004).

The prevention principle: Environment education is saddled with the main responsibility of protecting the environment. It is meant to engender a conscious attitude towards the interaction that we have with our natural/cultural environment and ethic of reserving resources and bio-cultural diversity (Hartecour, 2000). A key function of environmental education is the attainment of sustainability is to develop responsible citizen who have appropriate knowledge and skills to make decision that help prevents a problem from occurring or becoming worse.

The integrative principle: Environmental education must be hingered on the relationship between environmental problems and current development paradigms. It should be based on an understanding, that sustainable development is built on balance economic growth, social cohesion and environmental protection. It should be also recognized that ecological problems exists within a socio-economic, political and cultural content. Therefore, decision should be incorporate integrated solutions to environmental and other allied problem.

The environmental justice principle: Environmental education must protect human right as education is being described as a right. No group of people bears an unfair share of the harmful environmental risks from industrial, municipal and commercial operations or execution of laws, regulations and policies. Nations should not be forced into producing resources for survival under ecological destructive conditions.

FRAMEWORK FOR THE DEVELOPMENT OF ENVIRONMENTAL EDUCATION IN NIGERIA

The Nigeria government's effort towards enhancing and environmental knowledgeable and friendly citizenry manifests through the formation of the following:

- A national environmental policy in 1987.
- Development of a national conservation education strategy.
- The national council on education approved the introduction of environmental education components in the primary and secondary citizenship education.

PROBLEMS OF ENVIRONMENTAL EDUCATION IN NIGERIA

A cursory assessment of government efforts aimed at evolving an environmental education model is beset with a lot of limitation as in all other third world countries. Environmental education in Nigeria is full of inconsistencies and ambivalence. There is lack of political will to execute. Hence, it receives lip service and exits only on paper. It is inadequately funded and funding is externally induced. Non-formal environmental education is not being emphasized. Hence, the peculiar learning needs of adult are not integrated into the environmental field. Even in the so-called formal environmental education system, programmes are grossly inadequate. Opportunities to study environmental education as an academic discipline is limited and where applicable they are accorded low

priorities and are haphazardly organized such that environmental education topics and methods are studied in scanty from and not in great details (Apel and Camoszzi, 1996).

Environmental education in Nigeria is characterized by adoption of top-down externally-initiated approaches instead of bottom-up community based approach that is environmental sustainability complaint. It is also in sensitive to gender issue. Effective education for environmental sustainability in Nigeria in the new millennium will benefit greatly from the main themes of the proceeding of the Thessaloniki International Conference held in Athens in 1988.

CONCLUSION

The interaction between human beings and the environment cannot be over emphasized. It has spanned through the existence of mankind. Human survival is dependent on the natural resources-water, food and shelter, which make the use of the environment one of the germane development issues of 21st century. In order to achieve a balance between human needs and sustainability of the environment, there must be deliberate and systematic attempt to strengthen human's capacity to address environment and development issues the only potent tool to achieve this is non-formal integrated continuing education that is all embracing and inclusive.

RECOMMENDATIONS

Environmental education in Nigeria must posses the following features so as to ensure sustainability in the 21st century:

- Environmental Education should not be delivered in a manner that will be perceived as a threat by profit seeking sector. Sustainable development should be communicated in an understandable manner to the public. It should be closely related to the local needs and interests of various groups in the society.
- Where public awareness currently centres on economic development, a holistic approach needs to be introduced in order to highlight the many other dimensions related to economic consideration. Environmental education should stress the relationship between sustainability and the notions of partnership, poverty alleviation and achieving greater equity in society with regard to women, youths and other groups (Thessaloniki International Conference).

- Environmental education should make individuals realize how their behaviours contribute to environmental problems and their solutions.
- Environmental education should employ the use of both non-formal and informal communication systems in addressing environmental problems.
- Indigenous knowledge needs to be integrated in the environmental education model.
- The role and needs of youths and women at the local level must be taken into consideration in packaging environmental education model.
- Non-formal environmental education should be accorded priority in packaging environmental model.

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